munication antenna **226**. The RX communication matching circuit **224** may be a circuit in which the impedance matching can be adjusted under the control of the RX-CPU **202**, or may be a fixed constant circuit. The RX communication matching circuit **224** is configured to include a protection circuit for preventing generation of an excessive voltage.

[0054] Information can be read from and written to a contactless IC **228** by a contactless IC reader/writer function of another apparatus. The contactless IC **228** is compliant with, for example, the International Organization for Standardization and International Electrotechnical Committee (ISO/IEC) 21481, which an international standard for short-range wireless communication.

[0055] An RX communication matching circuit **230** is a circuit for performing impedance matching between the contactless IC **228** and an RX communication antenna **232**. The RX communication matching circuit **230** may be a circuit that can be adjusted under the control of the RX -CPU **202**, or may be a fixed constant circuit. Further, the RX communication matching circuit **230** includes a protection circuit for preventing generation of an excessive voltage. The RX communication antenna **232** is do antenna having, for example, a resonance frequency of about 13.56 MHz in the HF band.

[0056] An RX voltage measurement circuit **234** measures a voltage generated in the RX communication antenna **232**, and notifies a CPU **236** of a voltage value obtained by the measurement. The CPU **236** uses this voltage value to monitor the operation state of the contactless IC **228**. The RX voltage measurement circuit **234** has an ordinary configuration, and therefore a detailed internal configuration thereof will not be described.

[0057] The CPU **236** controls the entire power receiving apparatus **200**. For easy understanding, the CPU **236** is illustrated separately from the RX-CPU **202** that is in charge of controlling the received electric power. However, a single device may execute the functions of both CPUs. A RAM **238** is used as a work area of the CPU **236**. A ROM **240** is provided to store a processing procedure of the CPU **236**, and configured of, for example, a rewritable nonvolatile memory such as a flash memory.

[0058] An RX display unit **242** is configured of an LCD for displaying image data, operation information of the power receiving apparatus **200**, and the like. An operation input unit **244** receives various kinds of operation of a user performed on the power receiving apparatus **200**, and transmits the operation information to the CPU **236**.

[0059] A memory card **246** is a storage medium to/from which digital data can be written/read. An image capturing unit **248** is configured of an optical unit and an image sensor. The optical unit includes a lens and a driving system therefore.

[0060] The power receiving apparatus **200** further includes an RX wireless communication unit **250** and an antenna **252**. The RX wireless communication unit **250** can wirelessly communicate with other apparatus via the antenna **252**. The RX wireless communication unit **250** is compliant with a wireless standard different from the standard of the RX communication unit **222**, and is compliant with, for example, IEEE 802.11, which is a WLAN standard.

[0061] An RX sound emission. unit **254** is a unit for emitting sound such as operation sound and warning sound for the power receiving apparatus **200**, and is configured of, for example, an audio processing IC and a speaker.

[0062] FIG. **4** is a schematic configuration block diagram of a contactless IC card **400**. The contactless IC card **400** is a card from/to which data can be read and written, by a contactless IC reader/writer function of other apparatus. The contactless IC card **400** is compliant with, for example, ISO/IEC 21481, which is an international standard of short-range wireless communication.

[0063] A proximity integrated circuit card (PICC) antenna **402** has, for example, a resonance frequency of about 13.56 MHz in the HF band. PICO represents a contactless IC card.

[0064] A PICC matching circuit **404** is a circuit for performing resonance frequency adjustment and impedance matching of the PICC antenna **402**, which includes a PICC rectification smoothing circuit **406**, a PICC clock generator circuit **408**, and a PICC modulation/demodulation circuit **410**.

[0065] The PICC rectification smoothing circuit **406** rectifies an AC voltage generated in the PICC antenna **402**, thereby outputting a DC voltage. A PICC constant voltage circuit **412** generates a voltage necessary for a circuit block in a subsequent stage, from the output voltage of the PICC rectification smoothing circuit **406**, and supplies the generated voltage to this circuit block.

[0066] A PICC control unit **414** comprehensively controls the contactless IC card **400**. Further, according to an operation clock given from the PICC clock generator circuit **408**, the PICC control unit **414** receives post-demodulation digital data from the PICC modulation/demodulation circuit **410**, and supplies the PICC modulation/demodulation circuit **410** with data to be transmitted.

[0067] A PICC ROM **416** is a rewritable nonvolatile memory such as a flash memory for storing data of the contactless IC card **400**, and the data thereof is read and written by a contactless IC reader/writer. To be more specific, the PICC control unit **414** reads/writes data from and to the PICC ROM **416**.

[0068] FIG. **5**A illustrates a flowchart of a procedure of the power transmission apparatus **100** for wireless power transmission from the power transmission apparatus **100** to the power receiving apparatus **200**. FIG. **5**B illustrates a flowchart of a procedure of the power receiving apparatus **200**. In the flowcharts illustrated in FIGS. **5**A and **5**B, the TX-CPU **102** executes processes of the power transmission apparatus **100**, and the RX-CPU **202** executes processes of the power receiving apparatus **200**, unless otherwise described.

[0069] FIGS. **6**A and. **6**B each illustrate an example of apparatus status information transmitted and received between the power transmission apparatus **100** and the power receiving apparatus **200**. FIG. **6**A illustrates a data example in a case where power transmission is enabled, and FIG. **6**B illustrates a data example in a case where power transmission is disabled. The apparatus status information includes "apparatus name", "power-reception enabled/disabled", "battery voltage", "battery full charge voltage", "remaining battery level", "maximum power reception electric power", "transmission/reception requested electric power", "transmission/reception set electric power", "reception electric power", and "power-transmission enabled/disabled" as illustrated in FIGS. **6**A and **6**B. The TX-CPU **102** and the RX-CPU **202** store this apparatus status information.

[0070] FIGS. **7**A, **7**B, and **7**C each illustrate a layout example of the power transmission antenna **114**, the power receiving antenna **204**, and the contactless IC card **400**. FIG.